

6
81
up. 1

The

November, 1955 25c

Vol. LIII No. 2



Cornell Countryman



'60

INV. '60

Thanks . . .

for the air,
and the water,
and the generous earth . . .

for the miracle of seed,
the promise of blossom,
and the nourishment of fruit.

Thanks . . .

for the dawn,
and the pursuing twilight . . .

for rain,
and snow,
and the glory of the ever-changing year.

Thanks . . .

for music,
and art,
and poetry . . .

for commerce,
and industry,
for invention and achievement.

Thanks . . .

for the steeple,
and the town hall . . .

for the dome of authority,
and the pillar of justice.

Thanks . . .

for kin,
for friend,
for neighbor . . .

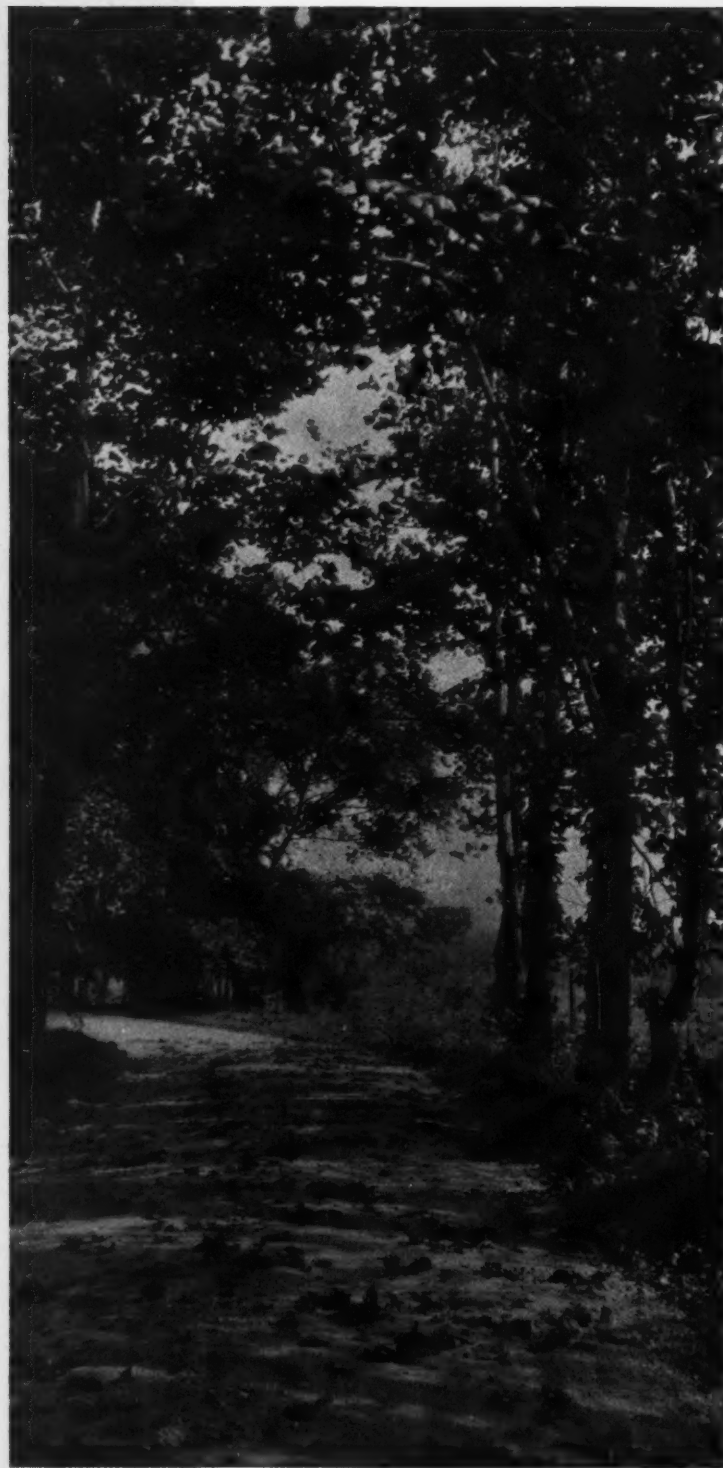
for the strength of man,
the courage of woman,
for the confidence of the young,
and the wisdom of the old.

Thanks . . .

for the mind to know,
the eyes to behold,
the hands to use,
and the soul to enjoy
all these things . . .

and for the heart to say—
Thanks!

Copy. 1951, Deere & Co.



JOHN  DEERE

MOLINE, ILLINOIS



Here is one of today's best farm investments

Conservative estimates made from experiment station reports show that each dollar invested in fertilizer accurately and efficiently applied can bring you:

\$6 increased yield from corn
\$4 increased yield from wheat
\$8 increased yield from cotton
\$11 increased yield from tobacco
\$7 increased yield from milk
\$4 increased yield from beef

These are facts . . . facts proved over and over again by agronomists all over the country . . . facts based on years of cross-checked experiments on many soils and many crops. What do they amount to? They say that you can make a net profit of from 300 percent to over 1000 percent on every dollar you invest in fertilizer. But you have to say this quietly or risk being branded as a wild-eyed promoter!

There are three basic steps you take to make this investment pay off: 1. *Have your soils analyzed.* 2. *Use the formula of fertilizer determined by the analysis.* 3. *Accurately apply the exact quantity.*

Step 3 is very critical and very final. Your ability to carry out this step depends on a piece of machinery. It either has the ability to spread accurately over a wide range or it doesn't. To insure your success in this step NEW IDEA builds a fertilizer spreader that is guaranteed to spread any fertilizer in any condition in any amount (between 10 and 5000 lbs. per acre) . . . uniformly and accurately, without clogging . . . or your money back.

NEW IDEA FARM EQUIPMENT COMPANY

Dept. 1621, Coldwater, Ohio

Mail this coupon for free literature on fertilizer spreaders.

NAME _____
 ADDRESS _____
 COUNTY _____ STATE _____

FOR EVERY 1% INCREASE IN
THE USE OF FLUID MILK...



• the FARMER'S PRICE GOES UP
ABOUT 2¢ PER HUNDRED...
that's DOUBLE HIS
INVESTMENT IN
"MILK FOR HEALTH"...and
THE CONSUMER PAYS NO MORE!

Milk for Health is the farmer's
organization working for this in-
crease... thru advertising public-
ity, nutrition education, and re-
search. All this for a farmer-con-
tribution of just one cent per
hundredweight!

MILK FOR HEALTH, INC.

119 S. Cayuga Street

Ithaca, New York



BARTHOLF Service Station

* * *

MOBILUBRICATION

TIRES

MOBILGAS

OIL

ACCESSORIES

* * *

Corner of Maple and Dryden Rd. Phone 4-9053



STIMSON PONTIAC, INC. FABULOUS 1956 PONTIAC

Authorized Sales and Service

GOODWILL USED CARS

Clinton R. Stimson '35
President and Treasurer

319 W. State St.

Telephone 2618

Cornell Countryman

Founded 1903

Incorporated 1914

Member of Agricultural College

Magazines, Associated

Vol. LIII—No. 2

IN THIS ISSUE

INQUIRING COUNTRYMAN	3
EXTENSION SERVICE AND FARM BUREAU SEPARATE	4
ONCE UPON AN AG-HEC DAY	6
TEENAGERS' REPUBLIC	8
AROUND THE UPPER QUAD	9
MEET PROFESSOR DARRAH	11
ROYAL JELLY—FOOD FOR A QUEEN	12
STUDENTS PRESENT VIEWS TO TRUSTEES	14
IMPORTED VARIETIES INCREASE U. S. CROP EFFICIENCY	16

COVER STORY: Joan T. Seward '59,
from Valley Cottage, tries her hand
in the Ag-Hec. Day Dairymaid Milk-
ing Contest. Credit—N. Brokaw and
J. Stringham

Editor-in-Chief Alfred H. Wegener

Business Manager Lieber H. Pinkas

Associate Editor Mary R. Wahl

BOARD OF EDITORS: AND MANAGERS: *Home
Economics Editor*, Jean E. Jellinek; *Illus-
trations Editor*, Aletta E. Manchester;
Club News, Christine C. Carr; *Secretary*,
Eleanor A. Ramp.

EDITORIAL BOARD: Karen Anderson, Ros-
amond Haire, Betsy Johnson, Margaret
Saturn, John Wertis

BUSINESS BOARD: Frederick Belden

BOARD OF DIRECTORS

Professor A. W. Gibson

Professor W. B. Ward

Mrs. Emilie T. Hall

Mr. Robert Eastman

The Cornell Countryman is published monthly from
October through May by students in the New York State
Colleges of Agriculture and Home Economics, units at the
State University of New York, at Cornell University.
Entered as second class matter at the Post Office, Ithaca,
New York. Printing by Art Craft of Ithaca. Subscrip-
tion rate is \$1.75 a year or three years for \$2.75;
single copies, 25 cents.

THE CORNELL COUNTRYMAN

Inquiring Countryman

QUESTION

Do you think that Ag-Domecon's establishment of a prelim file in the Mann Library will further academic and ethical standards at Cornell. Why?

ANSWERS

Phyllis Ferguson '57, Animal Husbandry: The idea is a good one. A student can find out what kinds of questions will be asked and he will know how to study for the prelim when he sees what type the professor gives. I don't think this would lead to any further stereotyped studying since the material covered in the course is the same each year, and there is a limit to the number of questions a professor can ask, anyway. If a professor doesn't want his exams to be seen, he collects them afterwards, so there is no danger of memorizing answers. I think the available prelims would not be more than two years old.

Eva Stern '57, Floriculture: I think that there ought to be one, but there is a danger of a student's memorizing pat answers rather than understanding the content of the course; he may not make use of his notes. He may strive to get higher grades, just for the grade itself. In this way the file may help put too much emphasis on grades.

Mary Avery '58, Agriculture: A file would be especially advantageous to new students and freshmen. Prelims might as well be available to all since, even in courses where prelims are collected, people copy down questions to save and file. The file could act as a study sheet, like the ones some professors now give out. However, such a file would be hard on a teacher if he has to make up new questions for each exam, and never be able to use them again. Yet, this might make exams less similar.

Dana Dalrymple, Graduate, Agricultural Marketing: It's hard to see how a prelim file would help the academic and ethical standards at Cornell, although it might help the grade of an individual student now and then. The point is that there's no substitute for study. I think the necessity of such a file is overstressed. There are only a few courses in which a knowledge of past exams would be of much use. However, such a public prelim file would even out the supposed inequalities between those groups which have access to such files and those which don't. In doing so, it will probably make a lot of people feel better anyway.

Bob Graves '56, Agricultural Economics: Yes. I feel that the prelim file will give an equal opportunity to all students to review previous examinations. It would also tend to eliminate the policy of some professors have of giving the same examination continuously.

Marilyn Heller '58, Home Economics: I do think that a prelim file would serve as an aid to students studying for prelims. I've found that by referring to former prelims I was better prepared to answer the questions on the current prelims. Mann Library is certainly an excellent location for such a file.

Anita Wisbrun '57, Bacteriology: As far as prelim files furthering academic and ethical standards of Cornell is concerned, I'd say they wouldn't further these at all. The student interested in learning a subject for the knowledge to be gained from it would have little interest in what has, and could be, asked in the future. I do think, though, that these files would be a help to the student in getting the grades he may want, and which seem to be of such great value these days.

NOVEMBER, 1955

Fletcher's

offer you

**2 GRADES OF CLEANING
GENERAL REPAIRING
MOTH PROOFING
STORAGE**

FAST DELIVERY SERVICE

or

DISCOUNT FOR CASH & CARRY

FLETCHER'S

Emergency 24-Hour or 8-Hour Service

103 Dryden Rd.

205 N. Aurora St.

Ithaca 2301

RCA VICTOR RADIOS

We don't have to tell you that an RCA Victor Radio, with the famous "Golden Throat" tone system, is the finest radio you can buy.

We do have to tell you that you can now buy an RCA Victor Radio at the Campus Store. Come in and see the portables, table models, and clock radios we have in stock. Prices start at \$19.95.

The Cornell Campus Store
Barnes Hall

Interview——with Director M. C. Bond——

Extension Service and Farm Bureau Separate

For many years, the New York State Extension Service has had a fine working relationship with the New York State farm and Home Bureau Federations.

They have been close partners. But on January 1, the Extension Service and the Farm and Home Bureau Federations will be independent.

How did they become partners? Why break up the tieup? What will the realignment of these organizations mean to people in New York? How will it come about?

In an interview with *Countryman's* Daniel J. Michl '58, and Alfred H. Wegener '56, Dr. M. C. Bond, Director of the New York State Extension Service, answers these questions.

Q. How did the close relationship between the Extension Service and the New York State Farm and Home Bureau Federations come about?

A. It all started back in 1911 when the Binghamton Chamber of Commerce and the D. L. and W. Railroad decided to sponsor a county agent who would familiarize farmers with progress made by the College of Agriculture. His office was known as the Farm Bureau. Two years later, a membership organization for sponsoring this work was started, and the first "farm bureau association" was organized in Chemung County.

The movement soon spread to other counties, and, in 1914, nine other counties had county agents who worked through county Farm Bureaus doing extension work.

Q. And then the Smith-Lever Act?

A. That's right—in 1914. It provided for agricultural extension work to be carried on cooperatively by the U.S. Department of Agriculture and the state colleges. Farmers had to secure enough county and state funds in order to match federal funds as evidence of their willingness to support extension work. The County Associations expanded and formed the New York State Farm Bureau Federation, and in 1919, the American Farm Bureau Federation.

Therefore, the County Association, and Farm Bureau Federation, were actually a group of farmers who helped promote the extension program.

Q. The County Farm Bureaus (Extension Service) also helped out the Farm Bureau Federation, didn't they?

A. Yes. Farm Bureau Committeemen, in soliciting their neighbors' membership in county organization work, also solicited a fee for membership in the State and American Farm Bureau Federations.

Q. Is the Farm Bureau Federation supported only by membership fees?

A. Yes.

Q. And the Extension Service?

A. Member dues comprise only five percent of Extension support. The federal government contributes 21 percent; the State, 35 percent; and the counties, 39 percent.

Q. Did Cornell engage in extension work before federal funds were available?

A. Several years before. In the early 1900's Dean Bailey, Professor Comstock, and Professor Martha Van Rensselaer would ride out to talk with local people about improving methods of farming and caring for a family. They rode in a horse-drawn buggy, limited in range of course, by the speed of the horse.

Q. Do many professors do extension work today?

A. Most of them do. As you know, the Colleges perform three functions: research, Extension and resident teaching. Most professors contribute to all three.

Q. We've noticed that the office of the New York State Farm Bureau Federation is located in Roberts Hall.

A. That's right.

Q. Well, if the Colleges, Extension Service, and Farm Bureau Federation have worked together in the past, why break up this relationship?

A. Although the early activities of the Federation were mainly to promote the Extension Service's educational programs, it soon seemed necessary for the Farm Bureau Federation to take definite positions regarding government programs. It is not appropriate for the Extension Service,

No Formal Ties . . . But A Friendly Relationship

a tax-supported organization, to take a definite stand in legislation. Yet, farmers do need representatives who can express their views on taxes, roads, and other political issues.

In some states, other farm organizations have objected to the close association of the Farm Bureau and the Extension Service. In particular, objections have been raised to making dues, fees, and contributions paid by people interested in extension work, available to an organization which may attempt to directly influence legislation.

Q. Is New York the only state in which these changes are taking place?

A. In many states the Extension Service has never had any legal or formal affiliation with any non-public organization. There has been a gradual shift throughout the last decade or two as people in various states decided that it would be to their benefit to bring about a realignment of their Extension Service and farm and home organizations. By 1947, only seven states had a legal affiliation between Extension and some organization. In 1953 New York was the only state in which a legal affiliation remained. A few other states have informal or financial relationships which they are now seeking to change.

Q. Did the proposal for separation in New York originate over night?

A. I assure you, it isn't an action that came up suddenly. It has been under consideration for several years. The State Farm Bureau Federation has given careful thought to the need for an independent Farm Bureau for about five years. The problem has been before the State Federation of Home Bureaus for about the same length of time. When the Farm Bureau Federation decided to propose an independent Farm Bureau, an Extension committee of 16 men and women was set up to make suggestions on the needed changes to carry on extension work in New York. The work of this committee has been under way for about a year and a half.

Q. What were the immediate steps that had to be taken to carry out this realignment from the Extension point of view?

A. One of the first actions was to find a new name for our county Extension organizations. The new Farm Bureau, of course, kept that title. That meant a change in state laws to permit the use of the new name. There was a strong preference for County Extension Service Association.

Representatives of each department—Agriculture, Home Economics, and 4-H, from throughout the state, met at Cornell June 7. First, they met separately, as departments, to discuss their special problem. Then, they met together to consider matters affecting all three departments.

Q. What decisions were made at this meeting at Cornell?

A. One of the most noticeable products of the meeting was the selection of names for the three departments. The new names will be Agricultural Department and Home Demonstration Department. The name of the 4-H Club Department will remain the same. The name farm department was considered, but in view of increasing research and educational work in fields related to agriculture, such as marketing, the name seemed too limited.

The membership policy was reviewed and approved.



—Pinkar

Director M. C. Bond

Membership provides Extension agents with a group of individuals who have shown interest in Extension and who can help in special projects.

Q. Will the Farm Bureau Federation office remain in Roberts Hall after the separation?

A. No, the Farm Bureau headquarters will move off campus about January first, when the change goes into effect.

Q. Will the Extension Service Association in the counties continue to operate on a membership basis with dues?

A. Local people have indicated they want to continue membership with dues in the County Extension Service Association. Everyone in the county, however, has the right to consult Extension workers. This privilege is *not* reserved for members of the County Extension Association. We've had a membership set-up over the years partly to secure funds, but there's a more important reason. It gives the Extension workers the backing of an organized group which has expressed an interest, and offered to assume responsibility and leadership. The Extension staff both in the county and at the Colleges have people to whom they can turn for advice, encouragement, or help in planning work.

Organization is important from the members' point of view also. It gives them a sense of belonging, of group solidarity. It also provides the mechanics for employing the county Extension workers and the office staff and for transacting business—purchasing equipment, allocating funds, and the like.

The question of dues, their amount, ways of collecting them, and related questions will be left for each County Extension Service Association to answer. However, all of the money thus contributed by the people of the county will be retained for the educational program they plan to carry on in cooperation with the State Colleges of Agriculture and Home Economics and the U. S. Department of Agriculture.

(Turn to Page 13)

Once Upon An Ag-Hec Day

by Janet A. McGinnis '56

THE noise and scramble of Ag-Hec Day 1955 have died away, but it will take a long time to make the Judging Pavilion look the same again. And it will be even longer before many of the upper campus population forget the excitement of the afternoon of November 12.

But some of us find the Ag-Hec Days of previous years also hard to forget. In fact, although Ag-Hec Day is only four years old, it is fast becoming a tradition. When Ag-Domicon planned the first one, the idea was built around the competitions held at "Farmers' Fairs" at some of the western colleges; but the ingenuity of the contests staged has made Ag-Hec Day an affair all its own.

According to the rules of the Day, the clubs on the upper campus may organize competitions and handle them. Ag-Domicon covers the cost of staging the events, while any profits netted from the Day are divided equally among participating groups. The prizes are simple and lack the glamour of a quiz show jackpot. Yet, a jar of deodorant to the triumphant greased-pig upsetter, or tickets to the evening's square dance to the fleetest Sadie Hawkins, can add spirit plus.

Spirit, in fact, is what propels the programs along. The competition between fraternities, independents, and professors; Arts students in the dairymaid contest; and



Professors Sheffy, Mellor, and Martin after greased pig contest of Ag-Hec Day, 1953.

boys putting the finishing touches on their prize-winning cherry pies all contribute toward more than just a good laugh. They add a large measure of understanding and mutual interest around the campus.

The sawdust floor of the Judging Pavilion is the contest arena where most anything may happen. Really grubbing in the sawdust is part of the game when you get your hands all greased and start out to upset an equally well-greased pig. Part of the fun is watching the flying long legs of a professor who is trying to outwit a pig.

A variation of this contest for the girls was popular the first year. Baby pigs weighing about 40 pounds had to be led across the finish line by a rope, a task which proved



—Cornell Countryman

Ag-Hec Day, 1953. Three contestants try to devour as much pie as possible in as little time as possible.

very exasperating. The piglets cooperated for a distance, then planted their feet and refused to budge, squealing at the top of their lungs. No amount of cajoling would move them until one resourceful contestant spun her pig over on his back and dragged him to the finish.

But the poor pigs aren't the only victims of chase. The girls pursue the fellows in a Sadie Hawkins handicap race in which the fellows must run in pairs with their legs tied so they are facing opposite directions. After a warm-up to determine how it is possible to run in this direction, the fellows are given a 30-second head start and the chase is on.

Soon the tables are turned and adept cowboys try to lasso co-eds. The girls are corralled and may not fight the rope off with their hands, but they dart quickly enough to keep the boys busy throwing the rope.

The dairymaid milking contest, though a little quieter than the races, is no less fun. The maids, proficient and prepared to milk cows, were once presented with goats to milk. When the astonished girls recovered, the event became an acrobatic contest of getting the milk from the small nannies into the bucket.

Pies figure well in the Day's events. Over in the Home Ec. Building, everybody is fussing over their special recipe for cherry pie; one ten-thumbed soul is fretting over a lattice-work top, while another meticulous chef is wondering why his top crust has melted away in the oven. Back at the Pavilion, a real mess is in session as a bearded face consumes a whole berry pie without using his hands. Onlookers delight in helping all the contestants in this event—the quicker the face meets the pie, the better.

Several other contests are staged that are equally popular and humorous. Finally, attention is focused on the big chicken barbecue and appetites are sharp.

For the evening, a lively square dance is scheduled. The dance was first held in the Pavilion, but weary dancers found sawdust makes a poor dance floor. Now in Barton Hall, the evening features a spirited round of square and couple dances, punctuated by crowning the Day's queen and auctioning the cherry pies from the baking contest. A final "Promenade your partner" brings the Day to an appropriate close.

Help yourself to the answers

When a question comes up about milk marketing, you'll have the answer handy if you have this free booklet. Here's the full story on the New York Metropolitan Milk Marketing Area order, written so you'll enjoy reading it.



To get your copy of this easy-to-understand booklet, send your request to

Metropolitan Cooperative Milk Producers' Bargaining Agency, Inc.

Room 118, Onondaga Hotel, Syracuse, New York



—International News Photo

Teenagers' Republic

by Margaret E. Saturn '57

ONLY ten miles from the Cornell campus, the smallest republic in the world is run completely by teenagers. This republic, the George Junior Republic at Freeville, was founded to serve teenagers in need of social guidance and to teach them how to become active citizens.

Its founder, William R. George, conceived the idea for the republic 60 years ago. Working with the New York Herald Tribune Fresh Air Fund, Daddy George, as he is commonly referred to, brought underprivileged boys from New York City to the country for several weeks during the summer. However, he soon felt the need for a more lasting and useful program—a republic of teenagers under private organization.

Starting with five boys in the winter of 1895, the Republic's population has risen to its present level of 125 teenage boys and girls. Nobody is turned away because of race, color or creed, but the individual himself must express a desire to attend.

Many applicants come from the ranks of unwanted children and particularly those with problems of social adjustment. Although some are referred to the Republic by social and educational agencies and juvenile courts, many are sent by their parents or guardians.

To accomplish their purpose, the Republic has developed a program of self-government and social guidance. Similar in structure and function to our federal government, the Republic government has one basic difference. Because of the small size, everyone can participate in the legislative branch by attending the Town Meetings. Qualified citizens may vote on all laws which are made to govern the citizens and set the policies of the Republic. When a proposal is approved at the Town Meeting, it goes to the president for his signature or veto. Besides the president,

Calvin Wright, president of the junior government, "George Junior Republic" visits Dag Hammarskjöld, Secretary of the United Nations.

the executive branch of the government includes the vice-president, and the secretaries of state, and treasury.

The judicial organization includes a system of courts and officials, ranging from justices of the peace to judges. They have all the powers of their adult counterparts. A judge may sentence an offender to a period of extra work duties. The offender is not paid for the work, but his wages go to the government, which, in turn, pays for his room and board. In addition, he has second class board, no seconds on meals, and cannot communicate with free citizens. Thus a citizen is governed by laws which he himself makes and which are enforced by his own peers.

Republic Currency Pays Taxes

Citizens are also confronted with income taxes. The Republic prints its own currency. This currency, backed by the George Junior Republic Association, serves as a medium of exchange on the campus. With the money he must earn, the citizen not only pays monthly income taxes of 2.5 percent, but he must also pay for his room, board, and any luxuries he might desire.

To earn money, every citizen must work. There is a wide variety of jobs available to him, depending upon his interests and abilities. He is hired by an adult employer who has all the usual rights of hiring, firing, and determining wages. The citizen is paid according to attitude and effort, as well as actual ability.

The school farm, operated on the Republic's 800 acres, is one of the enterprises employing citizen labor. The major farm operation centers around a herd of beef cattle and the crops necessary to feed the herd. This project, started only a year ago, has been set up from scratch by Republic labor. Seven acres of vegetable crops provide all the fresh vegetables, in season, for the Republic. Girls can and freeze some of the fresh produce for later use.

Also, enterprising citizens may set up businesses of their own, the only requirement being that it must be licensed. Citizens are also paid for school attendance, the pay being based on attitude and achievement.

With the money he earns, a citizen may room and board at his choice of several cottages. There are seven for the boys and three for the girls. The cottages have varying accommodations and prices. Adult couples serve as house parents in each of the cottages and are generally counselors for their twelve to fifteen children. The house mother also serves as landlady and may evict a resident who fails to pay his rent.

House parents are only a small part of the overall program of social guidance. The wider program is based on another concept of Daddy George. He felt that some people were physically ill, others were socially ill. Those who failed to adjust to their environment were in need of treatment and the services of social doctors rather than physical doctors. At the Republic, the social doctors are trained social workers. They may place a patient in the status of "social hospital" where his rights to make decisions for himself are removed. They may also commit him to a treatment center where he receives special attention. The Court may commit a citizen to "social sanitarium," which is similar to "social hospital," but only a social doctor can commit a patient to a treatment center.

Although this program serves the teenagers at Freeville, it is only a part of a larger plan. Daddy George originally wanted a series of junior republics throughout the country. Therefore, the George Junior Republic is an experimental project to discover better ways to serve all youth.

Around the Upper Quad

BACK to school meant back to work for active club members this fall, and they have done an excellent job in organizing and planning the coming year's program.

Members of the Conservation Club spent several days recently building a cabin in the Arnot Forest. The work was sponsored by various sports-minded organizations throughout the state and involved the building of a conservation work camp and teacher training center. Dr. Margaret Altman, a specialist on animal behavior, was a recent guest of the club. She showed slides of her work with elk and other big game animals at Jackson Hole, Wyoming.

Fish, Alaska, Australia

During December, Arch Petty, central district fisheries manager, will discuss why stocking trout streams is a waste of time and other topics. Peger Burggraf '56 will show slides

and movies of Alaska and will describe Alaskan wildlife, job opportunities, and some of his own experiences there.

At a recent meeting of the Agricultural Economics Club, Mr. Harold Grambs of the U.S. Department of Agriculture spoke to members of the club and of the senior class on the opportunities for agriculture graduates with the Department and with other government organizations. Mr. Grambs also described the new Civil Service exam which is now required for most government jobs. The club will feature speakers from both agricultural and non-agricultural business concerns at future meetings.

Omicron Nu, a Home Economics honorary, held its initiation banquet on November 9. Bess Glitz, who attended the annual meeting this year, told about her activities there. Dorothy Dean spoke to a joint meeting of Omicron Nu and the Home Economics Club recently about her experiences in Australia where she lived and worked with 25 farm families as a part of the International Farm Youth Exchange Program.

Ag-Domecon Council welcomed three new members elected by the freshman class: Nancy Stone, Home Economics, and Nelson Ellsworth and Douglas Theobald, Agriculture.

The EMPIRE Story

by R. V. Hemming,
General Manager
Empire Livestock Marketing
Cooperative

Why Was Empire Founded?



Mr. Hemming

Empire was founded to provide a dependable and available marketing service for farmers and dealers in the state.

Before Empire came along, marketing livestock was a pretty risky business. Farmers seldom could tell what their slaughter animals were worth, since price reporting was irregular, and prices for individual animals varied widely, often without any apparent relationship.

To improve marketing conditions, Empire has set the pace for competition by featuring sale of slaughter livestock by weight, prompt and accurate reporting of market prices, immediate payment on sale day, fair commissions that are the same to all consignors, local farmer advisory committees for each market, and a strict policy of never having purchased livestock.

In Empire's seven stockyards across New York State, these policies have given farmers the most reliable livestock and poultry marketing service possible.

EMPIRE Livestock

Marketing Cooperative

Regular weekly auction sales at

Bath - Greene - Oneonta

Bullville - Gouverneur

Caledonia - West Winfield

SPARKLING ACCESSORIES

to
The New Costume

Gifts for the
Girl Friend

Pins
Rings
Necklaces
Bracelets
Ear Rings

R. A. HEGGIE
and BRO. Co.
JEWELERS

136 E. State Street
Established 1875

AL FONTANA

SHOE REPAIR SHOP

Conserve Your Shoes
Keep Them In Good Repair

A Complete Line of

U. S. RUBBER FOOTWEAR

- ARCTICS—ideal for protecting yourself and your shoes during snowy weather.
- RUBBERS—for rainy weather.
- U. S. KEDS SNEAKERS—for all sports.
- ALSO—SUNDIAL SHOES.

401 Eddy St.
Near Campus Gate

Here's the Outstanding Value for Barn Feeding



G.L.F. 16% MILK MAKER

Give a good cow all the high quality roughage she'll eat, plus a feed that contains the extra digestible nutrients she needs, and she'll put into the milk pail all the milk she's capable of producing.

G.L.F. 16% Milk Maker is that kind of a feed—at low cost.

Milk Maker provides a guaranteed 4% fat and enough protein to keep each cow in your herd producing high and in good physical condition all through the winter.

A Feed Is Only As Good As Its Ingredients

Every ingredient that goes into Milk Maker is carefully chosen. Each lot of an ingredient is put through complete laboratory analysis to make sure of its nutritive value. The ingredients are mixed with precision machines at the G.L.F. mills and then checked so that each bag of feed meas-

ures up to the G.L.F. standard of practical quality — quality at a level which will give you the most milk for each feed dollar you spend.

Open Formula

You are sure of what's in a G.L.F. feed bag . . . you can see the ingredients . . . they're printed on the tag. G.L.F. introduced the open formula system in this area over 30 years ago. Today, as then, with G.L.F. feeds the farmer knows exactly what he's getting for his money.

. . . flexible, too

Milk Maker's formula can be changed by taking out an ingredient which is, for the time being, high priced, and replacing it with another ingredient of comparable nutritive value which can be gotten for a lower price. In this way, 'good buys' on ingredients keep the price of Milk Maker low . . .

MIX

HI-PRO CONCENTRATES

with your

HOME-GROWN GRAINS

Your G.L.F. Service Agency will grind and mix your home-grown wheat and oats with one of three G.L.F. Hi-Pro Concentrates — 24%, 30% or 40%. Or perhaps you prefer to mix your grains with separate ingredients. If so, your G.L.F. man will help you choose ingredients of the right protein content to fit your particular feeding program.

Cooperative G.L.F. Exchange, Inc.



THE CORNELL COUNTRYMAN

Meet Professor Darrah

by Lita H. Schwartz '57

PHEASANTS are flying faster than they used to," contends Prof. L. B. Darrah, elected as the Outstanding Professor of the College of Agriculture by the class of 1955. Speaking of his luck in hunting pheasants, Professor Darrah revealed that he hasn't bagged one bird in two years.

But pheasant hunting is not his only pastime. He enjoys gardening, working with students and, "most important, lying around in the shade." His family? "As of this morning I have a wife and three children—a boy of twelve, and two girls, nine and seven years old."

Born in Fairview, West ("by God") Virginia, Professor Darrah grew up on an 88-acre general farm which he operated for two years before going to West Virginia University. He received his B.S. in agriculture there in 1939. Two years later he earned his M.S. at Pennsylvania State College, and was awarded a Ph.D. from Cornell in 1943.

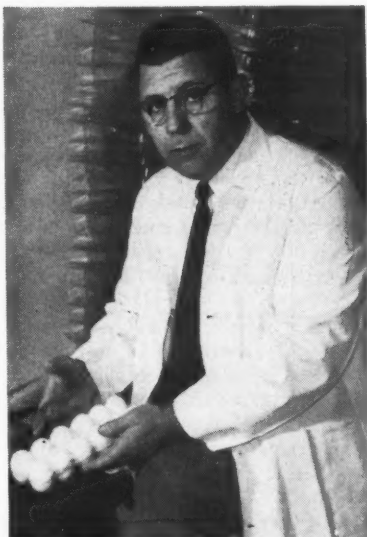
Future in Futures

Appointed Professor of Marketing here in 1951, he believes that college courses should contain a mixture of theory and practical study. In his marketing 140 course, the students are given a theoretical \$3,000 to invest during the term, and they can trade in wheat, corn, eggs, onions and potatoes. The opening and closing prices in these commodities on the Chicago market are posted on the bulletin board near his office each day. The brokers are Professor Darrah and his assistant who trade along with the class. They earn about \$75,000 in theoretical brokerage fees but usually lose money in actual trading.

The professor won't divulge the prize that is given to the student who has made the most money at the end of the course but, "As for the loser, I'll give him a barrel and a pair of suspenders. As an average the students break even. They really take their task seriously, as you can see by their

chewed finger nails and the cigarette stubs in front of the bulletin board where the daily prices are posted."

Those who have taken his course may also recall the chocolate cherry auctions held in class to illustrate diminishing utility. The person who bids the most for the first one, is then allowed to buy additional candies.



—College of Agriculture

Professor Darrah displays his newest research product — plastic egg cartons.

"Last spring a student bought the first one at five cents and wouldn't buy another until the price was three cents. He then bought one at two cents and another at half that price. When he wouldn't buy any more I began to give them to him free. Finally I had to pay him to take them. There is just one catch—the buyer must eat them as he buys them, and you know chocolate cherries."

Field trips are another method Professor Darrah uses to give his students practical marketing experience, and according to the students, "a lot of fun, too." On one trip, a co-ed bought a goat for \$4.50 at a Caledonia Auction. "Everything was fine until we got back to Cornell — Residential

Halls wouldn't let her keep it in the dorm. Then she began tying it to fire hydrants, but the Department of Building and Grounds got after her. In the end, she sold it for \$15 at a livestock sale on the campus."

"In the latest of these trips, the nature of demand was nicely shown," he continued. "Two of the boys bought a box of peaches for one dollar from a Syracuse wholesaler who complained of the poor market and insisted that the boys would not even be able to give them away. I told them that I would buy any of the peaches that were not consumed but the boys relieved me of my obligation and left fully half of the box of peaches in a garbage pail in Collegetown." For the professor, the field trips have had practical value, too. He has learned, "never to call the roll until we are more than 50 miles away from Ithaca."

Professor Darrah is the author of many bulletins, pamphlets, and books including *The Handbook of Poultry and Egg Statistics*, and *Business Aspects of Commercial Poultry Farming*. In addition, he is the co-author of a new book, *Marketing of Agricultural Products*. His numerous speaking trip also help to keep him busy.

Shell-Less Eggs

Lately, his research interests have centered on different forms of egg containers. One type will allow the sale of cracked and pee-wee eggs that would ordinarily have been difficult to sell. It is made of plastic, and the eggs are sold without their shells, and may even be cooked while in their artificial containers. Discussing a sales display case that has developed for eggs, Professor Darrah revealed that "sales have gone up anywhere from 30- to 100 percent in the stores where it has been used."

A member of the Course of Study Committee in Agricultural Economics, Professor Darrah has also served on the College's Educational Policy Committee, and is currently a member of both the Northeast Regional Poultry Marketing Technical Committee and the Northeast Regional Livestock Marketing Committee. He is a member of the American Farm Economics Association and the American Marketing Association, and is an alumni of Alpha Zeta and Phi Kappa Phi.

Speaking about his college career, Professor Darrah observed that he had "studied farm management for eight years but ended up in marketing." His advice, "Get ready for anything."

SOLVE YOUR PROBLEMS
and make life
easier with
Badger
FARM-ENGINEERED
BARN CLEANERS
SILO UNLOADERS &
BARN EQUIPMENT

Write for complete literature
and nearest distributor.



Installation and Service Specialists in All
Dairy Sections of U.S.A. and Canada
BADGER-NORTHLAND INC.
BOX 31, DEPT. C KAUKAUNA, WIS.

The 400

- breakfast
- lunch
- dinner

Continuous

Service

8 a. m. - 1 a. m.

In The Heart Of College town

Royal Jelly . . .

. . . Food For A Queen



by Mary R. Wahl '56

FROM the table of a queen bee has come a mysterious milky white cream called royal jelly. Eaten by man, this substance has been reported to do everything from growing hair on shiny bald scalps, to restoring youth and vigor. Scientists and doctors, led on by these claims, are now trying to discover exactly what royal jelly is.

For a long time, beekeepers have known that royal jelly plays a very important role in the beehive. Royal jelly alone has the power to make a queen out of an egg that would have developed into a worker bee. In a beehive, there is one queen or mother bee, thousands of workers, or sexually undeveloped females, and many drones or males. A queen may lay unfertilized eggs, which become males, and fertilized eggs, which become females. The amount of royal jelly fed by workers to a female larva determines whether it will become an ordinary worker bee, or a queen. The larva that is to become a worker bee is fed only a limited amount of royal jelly, but the larva for a future queen is fed all the royal jelly it can eat, while it is developing, and after it becomes an adult.

It Makes A Difference

Royal jelly, secreted by the salivary glands of workers, cause the great differences that exist between mature workers and queens—a queen can lay fertilized eggs, a worker cannot; a queen lives an average of three years, a worker lives only a few months. The legs and stomach of a worker bee are highly adapted for carrying honey and pollen, but these specializations are absent in queens.

After observing the influences of royal jelly on bees, people in many parts of the world collected royal jelly and ate it. Its biting, pungent taste did not discourage them, and it

was not long before fabulous claims were spread about the marvels of royal jelly. For example, one French journal lists rejuvenation, cure of nervous and vascular troubles, refreshment of memories, smoothing away of wrinkles, and even restoration of appetites as the attributes of royal jelly.

Longer Life

The attention of scientists was first focused on the life-prolonging effect that royal jelly has upon bees. In experiments where royal jelly was fed to fruit flies, the life span of the flies was increased considerably. This effect is believed to be caused by the high concentration of pantothenic acid in royal jelly. The other constituents of royal jelly are moisture, fats, proteins, sugars, vitamins, and an unidentified material.

In other experiments with royal jelly and fruit flies, flies fed royal jelly reached sexual maturity much faster and deposited 60 percent more eggs. Royal jelly has also been found to contain a substance which inhibits the growth of bacteria. When this is extracted, the crystals from the extract seem to possess the bactericidal quality.

The most recent discovery was made here at Cornell by Maurice Smith, a graduate student. Mr. Smith was able to raise normal queens from royal jelly that had been stored in a deep freezer for a year. He proved that the unknown substance in royal jelly will remain potent if stored properly.

A lot of experimentation has been done, and much more will have to be done before we know exactly what is in this mysterious cream. The beehive might be holding the secret to eternal youth, or it might be leading us on a wild goose chase. It is still too early to tell.

Extension Service and Farm Bureau Separate

(Continued from Page 5)

Q. Will the Extension program in New York move forward much as it has in the past?

A. Yes, with local people having a voice in deciding what they want to do and how they want to do it. The County Extension Agents and the specialists from the Colleges of Agriculture and Home Economics at Cornell will continue to help people with their educational program and to provide information and materials. There will continue to be a Board of Directors for each county association. Members of these boards will meet on a regional basis from time to time to discuss plans, exchange views, and make suggestions for continued progress of extension work.

It has been suggested that a State Council should be elected from the counties. Such a Council might meet once a year to exchange experiences and discuss state-wide educational programs or problems. This Council would also advise the Extension Service Administration on developing a more effective program. This would help keep a good working partnership between the state colleges at Cornell and the people in the counties.

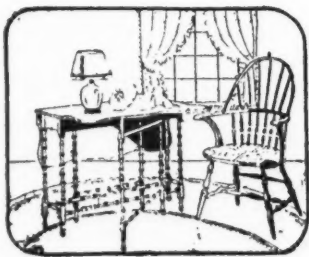
Q. Are the local leaders really important in Extension work?

A. The partnership with local leaders in New York State cannot be overemphasized. When we speak of the Extension Service, I'm afraid we may sound as if we mean only the paid members of the staff. That's not true. The

unpaid volunteers organized the service in the early days, financed the work before state and federal aid was given, and have supported extension work throughout its existence. We call this the Cooperative Extension Service, and its most important members are the men and women and young people who live in the counties. It is entirely due to their good judgment and fair mindedness that the changes to become effective January first have been developed with no bitterness or ill will. Without exception the counties have tackled this difficult task in the interest of the whole group, and for the whole state. We'll probably be discussing minor difficulties for a long time, but the spirit which our people have shown so far will bring these all to acceptable conclusion. That same spirit will carry us through whatever programs we need for the future of agriculture and homemaking. I know that every member of the Extension staff at Cornell, and in the counties, would agree with me in this.

Dr. M. C. Bond became Director of the Agricultural Extension Service for New York in 1954. Before this appointment, he was project leader of Extension work in the department of agricultural economics at Cornell. Director Bond had been professor of marketing in that department since 1928.

In recent years, Dr. Bond has spent considerable time working with managers of regional farm markets, and other marketing organizations to help producers get the highest possible production of needed farm products. He has also been interested in the development of educational programs in marketing for handlers and merchandisers of perishable farm products and he has organized food marketing information services for consumers in New York City and upstate New York.



DECORATING?

You'll find a variety of

- Floor & Wall Coverings
- Venetian Blinds
- Accord-o-fold Doors
- Paint

at

CHURCH'S Wallpaper & Paint

203 N. Aurora St. Ithaca 2688

Don Streeter's Mobil Service

Mobilgas
Accessories

**Special Sale
on Seat Covers
This Month
Prices Reduced
25 - 50 Percent**

Come in and
See Our
Selection

Open Day and Night
State and Albany Sts.
Phone 8892



DELMA, 17 jewels,
10K yellow or white
gold-filled case, Ex-
pansion bracelet.

\$72.50

With card \$65.00
Fed. Tax incl.

THE GIFT THAT
Makes Time More Precious...

Hamilton

AMERICA'S FINE WATCH

A small deposit will
hold it 'til Christmas

SCHOOLEY'S

152 E. State St.
Ith. 2598

Students Present Views To Trustees

by Mary L. Holmes '56

SEVEN students left the Moakley House in an exuberant mood late on the second Friday evening of October. They had just shared a unique experience. For the second time since the University was founded, representatives of the College of Agriculture met with the University Board of Trustees to discuss the functions of the College.

For the first time, however, students were asked to help explain the teaching program of the College and to give their appraisal of it. It was a challenging and rewarding task.

Who Was There?

Selected to represent the variety of students and studies in agriculture, the students came from very different backgrounds and have varied goals. Donald Bay '55, is now working for a bank in Rochester and, as an undergraduate, was an instructor in the agricultural engineering department. Don was the panel moderator. Jim Dollever '54, here with his wife, is

doing graduate work in preparation for research in plant physiology. Len Kallerges '56, from Newton High School on Long Island, is interested in food processing and is completing a major in agricultural economics.

Also on the panel, Bob Taylor '56, is studying extension and spent his summer last year earning farm practice credits as an assistant county agent in the state. Edward Stewart '56, from British Guiana, chose Cornell for its marketing courses and because of the convincing letter the foreign student advisor wrote to him. Phil Gravink '57, and the author were also members of the panel.

We included in our study the expanse of curricular the College offers, commenting on its value and weaknesses which each of us would like to remedy. We spoke about the place of activities in the College, practice, requirements, the type of basic courses we consider important, and the value of field trips and practical laboratory problems to learning.

The caliber of the professors and the use of the advisory staff were mentioned as well. We spoke from the concern with education that three or four years at Cornell had developed in us.

What we were able to say in the short hour we talked that night only scratched the surface of our ideas and concern. Don, our moderator, reluctantly stopped the discussion and summarized. He explained that the broad opportunities for education in the College of Agriculture provide a valuable background for the student, whether his work after college is in agriculture, in allied fields, or in unrelated work.

High Point

For the seven of us on the panel that night was a high point in our lives at Cornell. We were in the unique position of speaking to the trustees and faculty of the College as people with important and valuable thoughts to share with them, rather than listening to them as we usually do. Their apparent reaction was very favorable and, it is safe to say that the "students" who have long been teaching and who will always be the open-minded people who foster education "passed" their seminar in the College of Agriculture.

RTG ESSO SERVICE

ESSO GASOLINE

OIL



ACCESSORIES

LUBRICATION

TIRES

335 E. State St.

Phone 4-9083

ART CRAFT OF ITHACA INCORPORATED

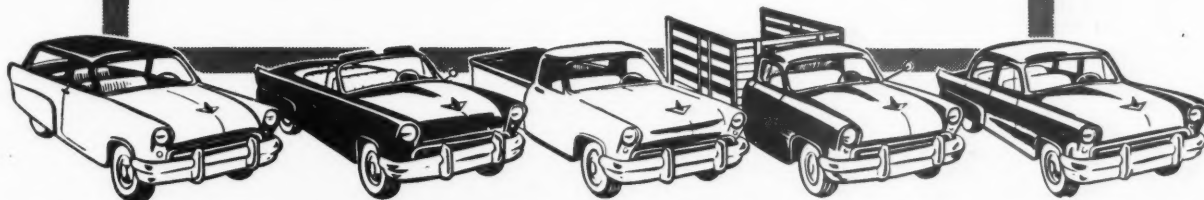
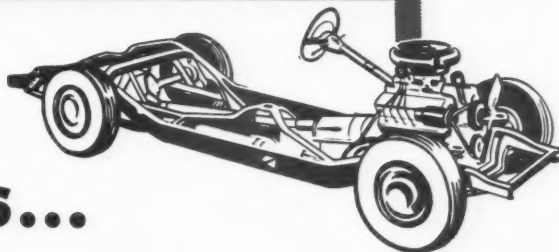
Photo-Offset and Letterpress Printing

Dial 4-6016

312 E. Seneca Street

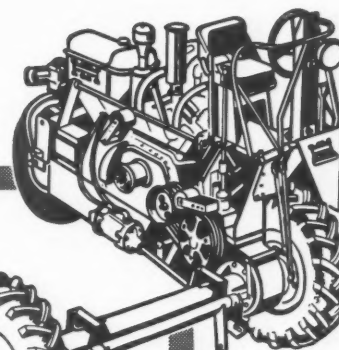
Ithaca, N. Y.

**IF ONE ENGINE
AND FRAME
GAVE YOU 5 CARS...**



**YOU'D KNOW HOW FOLKS
WHO UNI-FARM PROFIT**

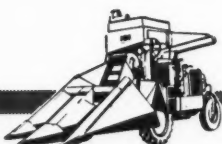
**ONE  UNI-FARMOR
MAKES 5
HARVEST MACHINES!**



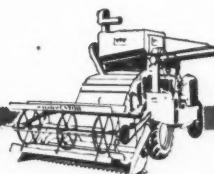
MM UNI-TRACTOR
Piggy-back carrier of
all Uni-Farmor machines.



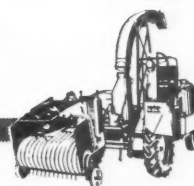
MM UNI-HUSKOR
World Champion
corn picker.



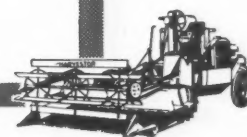
MM UNI-PICKER-SHELLER
Picks and shells corn
in one trip.



MM UNI-HARVESTOR
Self-propelled combine.



MM UNI-FORAGOR
Chops hay and row crops
for silage.



MM UNI-WINDROWER
Windrows hay and grain
10 feet at a swath.

Suppose you could convert your car at will to a station wagon, a convertible, a pick-up, a truck, or a family sedan, mounting whichever body you wanted on the same engine and frame. A car like that would be really five cars, serving five different purposes, at a cost far less than five standard vehicles.

What a car like that could do for you, the Minneapolis-Moline Uni-Farmor has already done for the farmer. One basic MM Uni-Tractor carries *five* different harvest machines . . . to do *five* different harvest jobs.

Modern MM Uni-Farming gives the farmer a money-making self-propelled machine for crop after crop. And . . . because all Uni-Farmor machines mount on the same Uni-Tractor, this 5-in-1 farming system actually costs far less than conventional tractor-drawn machines!

Many jobs with one basic machine . . . lower production costs for the food and fibre that sustains the nation. That's how MM Uni-Farming serves the American Farmer-Businessman, and all who buy what the farmer sells.

MINNEAPOLIS-MOLINE
MINNEAPOLIS 1, MINNESOTA

Imported Varieties

Increase U. S. Crop Efficiency

by Robert B. Hunter '58

SCIENTISTS are now searching Turkey, Afghanistan, West Pakistan, and India in order to find new plant specimens adaptable to our Nation's agriculture. Their aim is to collect plants which may be grown in this country or which may be crossbred to produce new varieties.

The responsibility for this research lies with the Agricultural Research Service of the U.S. Department of Agriculture. Cooperating with them, state experiment stations in all of the 48 states and Alaska, Hawaii, and Puerto Rico test the plant introductions under local growing conditions.

Since 1898 the U. S. Department of Agriculture has imported more than 220,000 plants from every corner of the world. These include alfalfa, soybeans, tung, sugarcane, rice, and hard winter wheat.

Need To Improve

At present, there is a great need for plants with resistance to new threats from insects and diseases. Also, plants are needed which make more efficient use of fertilizer and rainfall than do the crops now grown. In addition, varieties are needed to improve the composition of presently grown varieties, to provide more vitamins or protein, and to produce plants which enable more efficient harvesting.

The Middle East and Southwest Asia are now being systematically explored because many of our domestic plants originated there.

When plants of interest are found in foreign countries, a sample is obtained and sent to the Inspection House at Washington, D.C. Here it is identified botanically, and if necessary, fumigated, quarantined, or destroyed. If passed, the plant is sent from the Inspection House to the USDA's Plant Introduction Section at Beltsville, Maryland. There the plant is screened and samples sent to all state experiment stations where it might be adaptable to state conditions.

The agricultural experiment station serving New York State is located at Geneva. When they receive the plant from Beltsville, their first job is to propagate it. During propagation the specie is pollinated by hand so that its characteristics will remain unchanged. There are two replicates of the plant

grown. The first replicate is sprayed for the control of disease and insects. From this, agronomic and horticultural notes are taken. The second replicate is not sprayed so as to obtain information on resistance to such diseases and insects as occur in the area.

Progress Noted

At the end of each growing season, a catalog of seeds is prepared which lists all the plants that have been propagated during the preceeding year and gives descriptive notes that were taken in the field. For instance, the notes for peas would include plant habit, vigor, flower color, time of maturity and resistance to disease and insects. Also, degree of pod set and other pod and seed characteristics are indicated. This catalog is sent to more than 100 cooperators in the region. Any of the plants listed may be obtained by qualified breeders.

Some of the plants that the Geneva Experimental Station has been working on this past year include: A Ladino clover from Israel, cucumbers from Turkey and Canada which resist cucumber mosaic, and serpentine or snake melon from Asia. One other plant is a bushy, leafy alfalfa from Denmark which has more and longer

branches than the Narragansett. If this variety holds up in future tests as well as it has in production tests, it might easily replace the Narragansett Alfalfa within the next few years.

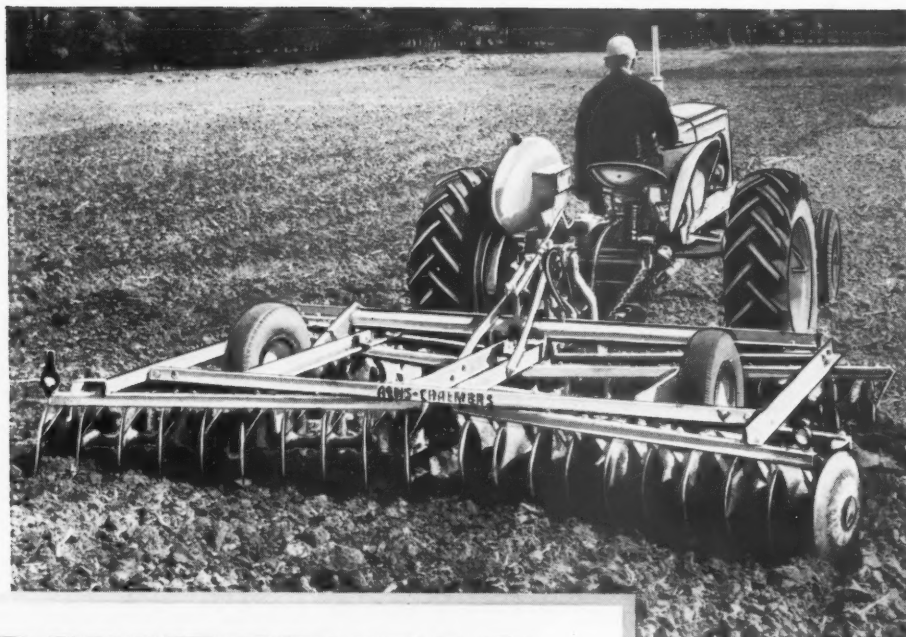
Many of the products that plant research workers are experimenting with today were not considered important a few years ago. However, chemists are continually developing new products made from plants having no previous value.

One example of this type product is the castor bean. During both World Wars castor beans were government supported because they had little appeal to either industry or farmers. However, chemists soon developed uses for castor oil in jet engines, lubricants, hydraulic fluids, paints, plastics, and textiles. Plant research was needed to produce a variety of castor bean which would enable machine harvesting and higher yields. This meant the development of dwarf varieties that bear spikes at uniform distance from the ground and with beans that do not shatter early in harvest. Scientists have succeeded in producing a plant which can be harvested by machine without shattering and which yield 15-20 percent more. However, they have not been able to produce a disease resistant type. If they can succeed in this, the castor bean will be able to compete with other crops in the area.

This is only one example of the many opportunities that exist to increase efficiencies in crop production. By introducing new crops into this country, research will greatly contribute to adjusting agriculture to present-day needs.



—N. Y. S. Agricultural Experiment Station at Geneva
Shirley McGuigan sorts over scores of Asiatic squashes under test in the Plant Introduction project at the Experimental Station at Geneva. The researchers are looking for germ plasm that might contribute something to plant improvement in the northeastern United States.



ENGINEERING IN ACTION

makes the difference in earning power

Until recently a farm tractor at work was simply a combination of weight and power in motion — with pulling capacity largely dependent upon the amount of weight carried on the drive wheels.

Today, the work capacity of Allis-Chalmers tractors is measured by a new concept . . . *engineering in action!*

For example, the Allis-Chalmers WD-45 Tractor does not depend upon its own weight alone for adequate traction to utilize the full power of its dynamic engine. By means of the exclusive hydraulic Traction Booster, it *automatically* transfers to the drive wheels as much of the implement's weight as needed, to assure ground-gripping

traction and reduce power-wasting slippage to a minimum.

The Allis-Chalmers Traction Booster system of automatic weight transfer eliminates the need for costly, useless weight in the tractor. Implement weight becomes working weight applied and removed as needed. The action is as automatic as that of an engine's governor.

More performance with less weight . . . at lower cost to the purchaser . . . that's Allis-Chalmers engineering in action.

Today, it makes an important difference in the return a farmer can expect from his tractor investment.

FARM EQUIPMENT DIVISION, MILWAUKEE 1, WISCONSIN

ALLIS-CHALMERS



Library,

U. S. Dept. of Agr.,

Washington, D. C.

A report to you about men and machines that help maintain International Harvester leadership

NOW! IH ELECTRALL

**adds another dimension
to tractor usefulness!**

Completely mobile electric power is now a reality for many practical and profitable farm applications. Its source is IH Electrall, now available after years of intensive development. Mounted on a McCormick® Farmall® 400, new International® W 400, or a Farmall Super M-TA tractor, Electrall provides a high-capacity, combined electric generating and distribution system for use anywhere the tractor can be driven.

The compact Electrall unit is easily and quickly mounted, or dismounted from the tractor. You need dismount the Electrall unit for only a few seasonally-used, front-mounted implements; otherwise it does not interfere with normal tractor and equipment operation. Neither does it tie up the tractor drawbar, as is the case with a generating unit driven from the power take-off. Electrall operates without interruption whenever the tractor engine is running at rated speed.

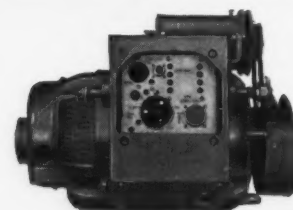
Electrall can pay its way now on farms—providing standby power, driving electric motors to power field machines, and powering portable maintenance equipment. However, great areas of utility and profit are yet to be perfected or developed—through ingenuity of farmers and research of agricultural engineers, soils scientists, agronomists, and other specialists who constantly are extending the applications of electricity to agriculture. The applications of Electrall are *unlimited!*

Write for booklet, entitled, "IH Electrall", for further information. It's free—get yours today.



Standby power.

(above) When the power line fails, just plug in Electrall . . . to supply power for your farmstead and keep vital equipment running.

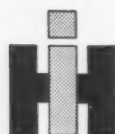


Electrall distribution panel. An outlet is provided for 115-volt 15-ampere, 60-cycle, single-phase power. Another single-phase outlet supplies approximately 6.2 kw for 220/208-volt service. A 10-hp motor can be operated with power from the three-phase outlet. Generator capacity is 12.5 kva. Away from the highline, Electrall powers saws, welders, spray guns, and other electric equipment.



Electrall generator powers a 10-hp Electrall motor to drive a McCormick No. 55-W hay baler.

IH engineering teamwork produced the application of Electrall to the Farmall and International tractors. IH research, engineering and manufacturing men are constantly pooling time and talent to provide equipment of wider application and improved performance to make the farmer's work easier while boosting production.



INTERNATIONAL HARVESTER

International Harvester products pay for themselves in use—McCormick Farm Equipment and Farmall Tractors . . . Motor Trucks . . . Crawler Tractors and Power Units . . . Refrigerators and Freezers—General Office, Chicago 1, Illinois.